

## ABSTRACT

In the described embodiment, methods and systems for processing facial image data for use in animation are described. In one embodiment, a system is provided that illuminates a face with illumination that is sufficient to enable the simultaneous capture of both structure data, e.g. a range or depth map, and reflectance properties, e.g. the diffuse reflectance of a subject's face. This captured information can then be used for various facial animation operations, among which are included expression recognition and expression transformation.